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IS: 8606 - 1977

Indian Standard
SPECIFICATION FOR
BRASS SCREW WIRE FOR FOOTWEAR

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SPECIFICATION FOR BRASS SCREW WIRE FOR FOOTWEAR

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Indian Standard

SPECIFICATION FOR BRASS SCREW WIRE FOR FOOTWEAR

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 14 October 1977, after the draft finalized by the Footwear Sectional Committee had been approved by the Chemical Division Council.

0.2 Brass screw wire is an important footwear accessory. It is used in industrial and safety leather boots with leather sole and ankle boots with leather sole for heavy duty and general purposes. The purpose of the use of brass screw wire lies in attaching outer leather sole to the bottom layers by screwing all round. From the manufacturers as well as users point of view it has become necessary to publish a standard on brass screw wire so as to ensure better performance of this item.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements and methods of sampling and test for brass screw wire for footwear.

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions given in IS : 2050-1967† shall apply.

3. TYPES

3.1 This standard covers two types of brass screw wire, namely, Type 1 and Type 2.

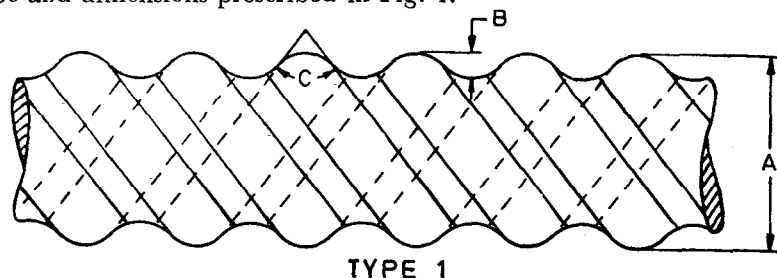
*Rules for rounding off numerical values (*revised*).

†Glossary of footwear terms.

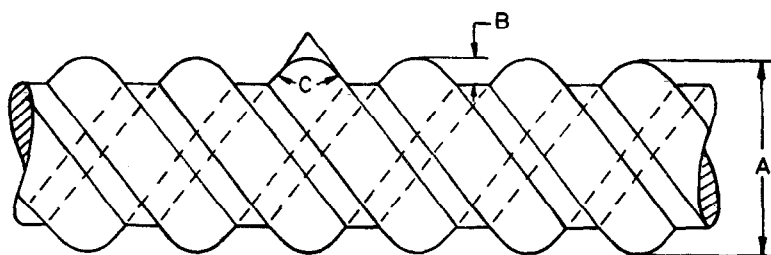
4. REQUIREMENTS

4.1 Material — Brass screw wire shall be made of brass of Grade CuZn 37 conforming to IS:4413-1967*.

4.2 Shape and Dimensions — Brass screw wire shall conform to the shape and dimensions prescribed in Fig. 1.



TYPE 1



TYPE 2

DOUBLE START
(RIGHT HAND THREADS)

All dimensions in millimetres

MATERIAL	DIAMETER	DEPTH OF THREAD	ANGLE OF THREAD	PITCH
—	A	B	C	—
Brass	2.28 to 2.54	0.292 to 0.299	95 to 98°	1.422

FIG. 1 BRASS SCREW WIRE

4.3 The brass screw wire shall withstand the reverse bend test given in 4.3.1.

*Specification for brass wires for general engineering purposes.

4.3.1 The test piece when tested in accordance with IS : 1716-1971*, shall withstand, without any sign of failure, being bent forwards and backwards four times through 180° over a block of diameter 15 mm; the first bend of 90° not being counted.

4.4 The wire shall be free from cracks, pits, dents and other defects. The threads shall be right hand and the pitch and depth shall be regular and uniform throughout. The wire shall have a bright finish.

4.5 Performance Test—The brass screw wire shall be fitted in high speed screwing machine and shall be driven in five following leather pieces and observed for performance as given in **4.5.1** :

<i>Material</i>	<i>Thickness, Min mm</i>
Sole leather (insole)	3·5
Chrome upper leather	2·0
Chrome lining leather	1·5
Sole leather (middle)	3·5
Sole leather (outer)	4·0

4.5.1 Catcher of the high speed machine shall uniformly draw the screw wire. It shall penetrate all the above layers freely without breaking and flush to the insole and outer sole without bruise mark cutting.

5. PACKING AND MARKING

5.1 Packing — Brass screw wire shall be packed in small carton boxes or otherwise as agreed to between the purchaser and the supplier.

5.2 Marking — Each package shall be marked with the following information :

- a) Description of the material;
- b) Batch number;
- c) Manufacturer's name and recognized trade-mark, if any; and
- d) Type and quantity.

5.2.1 The box may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

*Method for reverse bend testing of steel wire (*first revision*).

6. SAMPLING

6.1 The method of drawing representative samples and the criteria for conformity shall be as prescribed in Appendix A.

APPENDIX A

(*Clause 6.1*)

SAMPLING AND CRITERIA FOR CONFORMITY**A-1. SCALE OF SAMPLING**

A-1.1 Lot — All brass screws of the same type and manufactured in the same batch of manufacture in a single consignment shall constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of the specification, samples shall be tested on each lot separately. The number of brass screw wires to be sampled shall depend on the size of the lot and shall be in accordance with col 2 of Table 1.

TABLE 1 SCALE OF SAMPLING

LOT SIZE	VISUAL AND DIMENSIONAL, CHARACTERISTICS		SAMPLE SIZE FOR REVERSE BEND TEST AND PERFOR- MANCE TEST
	Sample Size	Permissible No. of Defectives	
(1)	(2)	(3)	(4)
Up to 500	50	3	1
501 „ 800	80	5	2
801 „ 1 000	125	7	3
1 001 „ 3 000	200	10	4
3 001 „ 5 000	315	14	5
5 001 and above	500	21	6

A-1.2.1 These brass screw wires shall be selected at random. At least 25 percent of the packages, subject to minimum of two, shall be sampled and approximately equal number of brass screw wires selected from each package so as to constitute the required sample size given in col 2 of Table 1.

A-1.2.1.1 In order to ensure the randomness of selection, procedures given in IS : 4905-1968* may be followed.

*Methods for random sampling.

A-2. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 The brass screw wires selected under col 2 of Table 1 shall be tested for visual and dimensional requirements given in **4.2** and **4.4**. A brass screw wire shall be considered defective if it fails to conform to any of the requirements given in **4.2** and **4.4**. The lot shall be declared as conforming to these requirements if the number of defective brass screw wires found in the sample does not exceed the permissible number of defectives given in col 3 of Table 1.

A-2.2 The lot which has satisfied dimensional and visual requirements in **4.2** and **4.4** shall be further tested for reverse bend test and performance test as prescribed in **4.3.1** and **4.5**.

A-2.2.1 Sufficient number of brass screw wires shall be selected from the lot so as to carry out the number of tests given in col 4 of Table 1. These brass screw wires may be selected from those already selected under col 2 of Table 1 and found satisfactory. No failure shall occur under col 4 of Table 1 for the lot to conform to the requirements of the reverse bend test and performance test.

A-2.3 For declaring the conformity of the lot to the requirements of this specification **A-2.1** and **A-2.2** shall be satisfied.

INDIAN STANDARDS

ON

FOOTWEAR

IS :

- 583-1969 Ankle boots for general purposes (*first revision*)
- 584-1964 Chaplis, frontier pattern, for general purposes (*revised*)
- 1638-1969 Sizes and fitting of footwear (*first revision*)
- 1989-1973 Safety boots and shoes for mines and heavy metal industries (*second revision*)
- 2050-1967 Glossary of footwear terms
- 2051-1976 Leather footwear, methods for sampling of (*first revision*)
- 2060-1962 Gent's leather shoes
- 2472-1969 Protective gaiters
- 3735-1966 Canvas shoes, rubber sole
- 3736-1966 Canvas boots, rubber sole
- 3738-1975 Rubber knee boots (*first revision*)
- 3976-1975 Safety rubber-canvas ankle boots for miners (*first revision*)
- 4128-1967 Fireman's leather boots
- 4512-1967 Footwear lasts, wooden
- 4585-1968 Football boots
- 5259-1969 Girls' and maids' school shoes
- 5332-1969 Boys' and youths' school shoes
- 5333-1969 Leather cricket boots
- 5520-1969 Lasts, wooden, for heavy-duty boots
- 5557-1969 Industrial and safety rubber knee boots
- 5676-1970 Moulded solid rubber soles and heels
- 5689-1970 Ankle derby boots
- 5852-1977 Protective steel toe caps for footwear (*first revision*)
- 5853-1970 Open-toe wedge sandal for nurses
- 5865-1970 Heels, wooden for women's and girl's footwear
- 6053 Hand tools for footwear industry:
 - (Part I)-1970 Upper clicking knife
 - (Part II)-1971 Bottom cutting knife (*RAMPI*)
 - (Part III)-1971 Designers' knife
 - (Part IV)-1972 Half round knife
 - (Part V)-1972 Straight hacking knife
- 6478-1971 Shoe for nurses
- 6493-1971 Leather sandal for men
- 6502-1971 Size stick for footwear industry
- 6519-1971 Selection, care and repair of safety footwear, code of practice for
- 6664-1972 Micro-cellular rubber soles and heels
- 6719-1972 Solid PVC soles and heels
- 6721-1972 PVC sandal
- 7329-1974 Metal last for safety rubber-canvas ankle boots
- 7554-1974 Stiffeners
- 7555-1974 Code of practice for the manufacture of ankle boots for general purposes
- 7568-1975 Direct moulded sole ankle boots for general purposes
- 7573-1975 Hockey shoes
- 8060-1976 Heel tip and toe tip with nails for footwear
- 8085 (Part I)-1976 Methods of test for footwear : Part I Dimensions, fitting and adhesion test